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Markups, Factorless Income, and the Value of U.S. Corporations

Separating claims on capital from claims on factorless income, 1929–2025

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OUR STORY

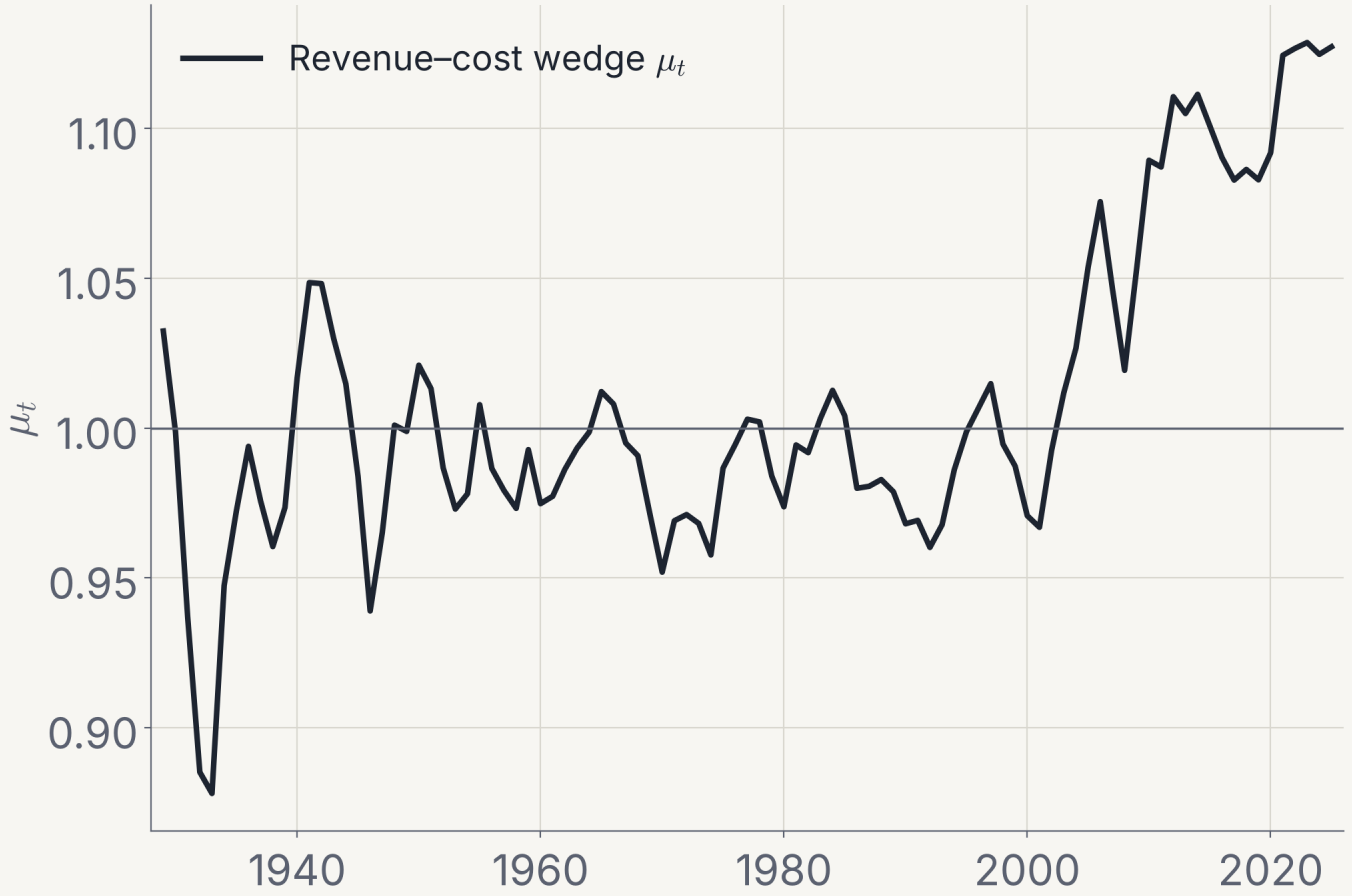
A growing share of corporate income is factorless

$$\underbrace{Y_t}_{\text{value added}} = \underbrace{R_t K_t + W_t L_t}_{\text{factor costs}} + \underbrace{\Pi_t}_{\text{factorless}}$$

$$\mu_t = \frac{Y_t}{R_t K_t + W_t L_t}$$

Natural interpretation of rising Π: rising markups

$\mu \approx 1$ until 2000; 1.13 by 2025



OUR STORY

Rising μ explains key macro / finance facts

1

Surging corporate valuations but a stable capital-to-output ratio and modest investment

2

Expected return to capital declining in line with interest rates

3

Labor's share declining in line with the natural rate of interest

4

Growth in corporate free cash flow outpacing growth in corporate earnings

KEY MESSAGE

Factor shares, cash flows, and valuation

Factor shares

$$Y_t = \overbrace{W_t L_t}^{\text{labor}} + \overbrace{R_t K_t}^{\text{capital rentals}} + \overbrace{\Pi_t}^{\text{factorless}}$$

$$= \frac{(1-\alpha)\,Y_t}{\mu_t} + \frac{\alpha\,Y_t}{\mu_t} + \left(1 - \frac{1}{\mu_t}\right) Y_t$$

Two cash-flow streams

$$FCF_t^K = \underbrace{(1-\tau_t^c)\big(R_t K_t - \delta_t K_t\big)}_{\text{after-tax rental income}} - \underbrace{\big(K_{t+1} - K_t\big)}_{\text{net investment}}$$

$$FCF_t^{\Pi} = (1-\tau_t^c)\,\Pi_t$$

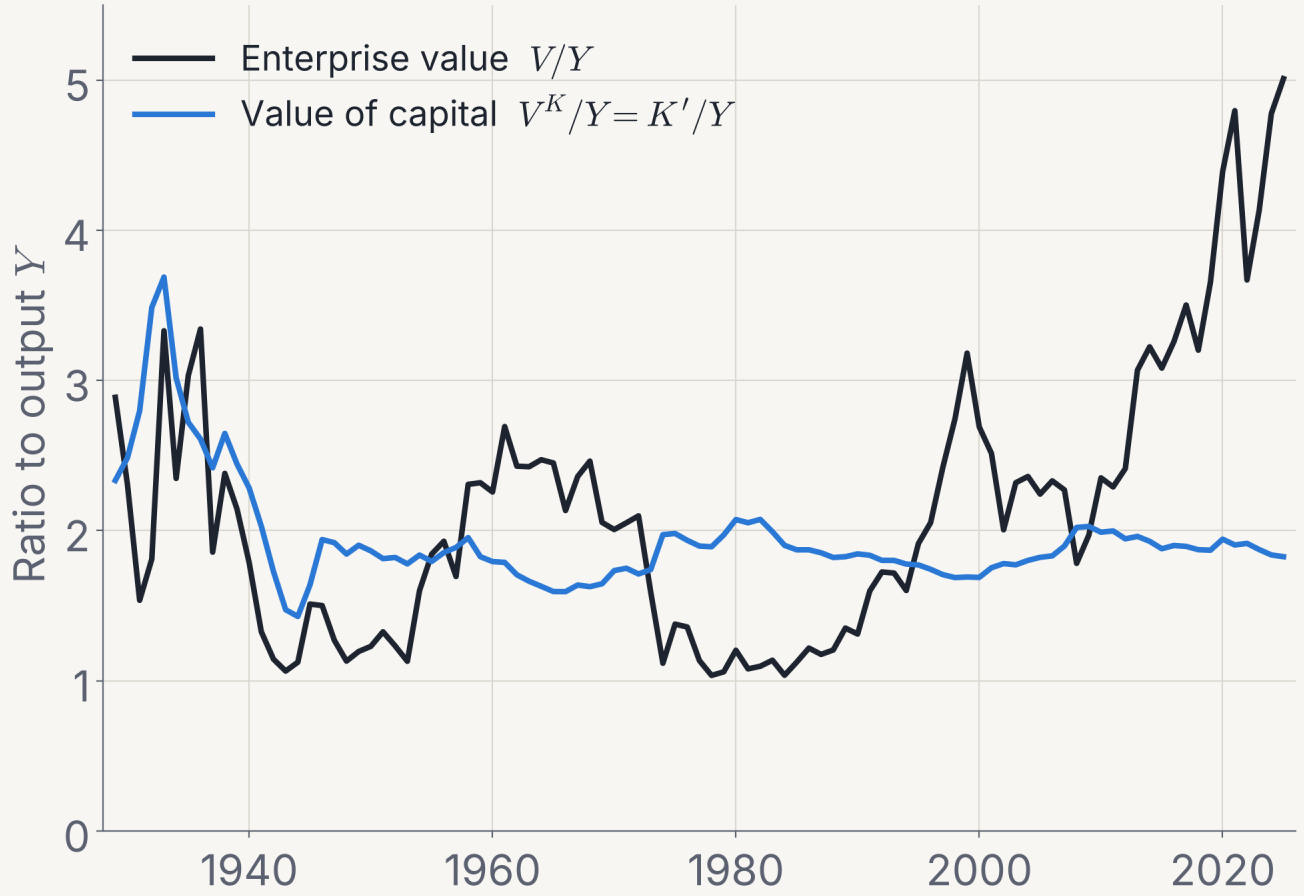
Two components of value

$$V_t = \sum_{j\geq 1} E_t\big[M_{t,t+j}\,FCF_{t+j}\big] = \underbrace{K_{t+1}}_{V_t^K\text{: replacement cost}} + \underbrace{\sum_{j\geq 1} E_t\big[M_{t,t+j}\,FCF_{t+j}^{\Pi}\big]}_{V_t^{\Pi}\text{: DPV of factorless income}}$$

KEY MESSAGE

Valuations surged; capital / output did not

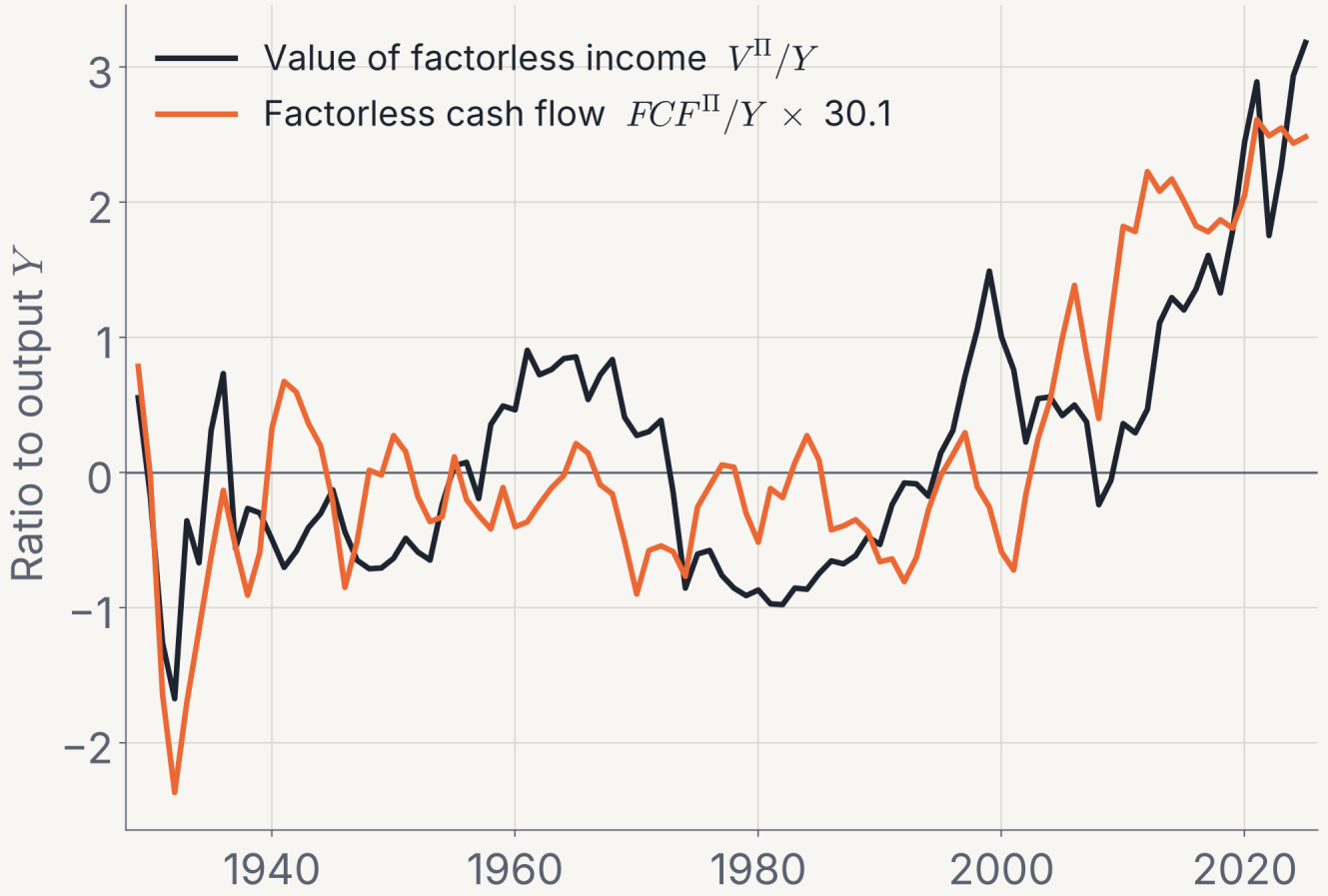
- V/Y: 1.2 (1980) → 5.0 (2025)
- K'/Y: 1.6–2.1 since 1945
- Post-war value swings: almost all factorless



KEY MESSAGE

Factorless value has risen with factorless cash flow

- Factorless cash flow ≈ 0, 1945–2000
- 8.3% of *Y* by 2025
- Implied contribution to value = 8.3% × 30.1 = 2.5 × *Y*



CAPITAL

Expected return to capital from the investment FOC

$$E_t\left[r^K_{t+1}\right] = \frac{\alpha/(1-\alpha)}{K_{t+1}/Y_t}\,(1+\bar{g}_t)\,(1-\tau^c_t)\,\frac{W_t L_t}{Y_t} - (1-\tau^c_t)\,\delta_t$$

Observed each year

The capital-to-output ratio

Expected growth

Known capital growth plus filtered trend productivity growth

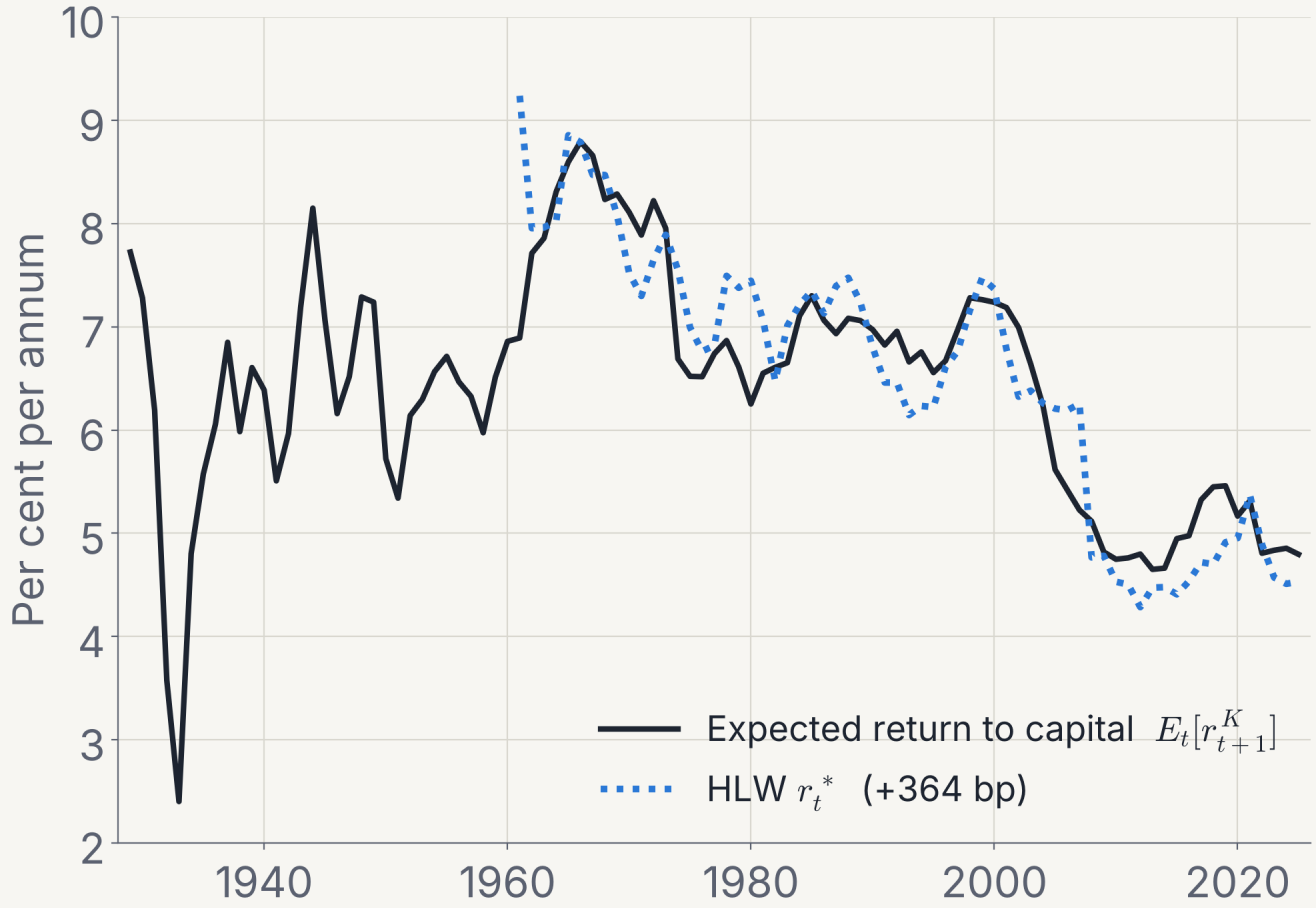
Random walks

Tax rate, labor's share and depreciation: today's values are the forecasts

CAPITAL

The expected return to capital tracks *r**

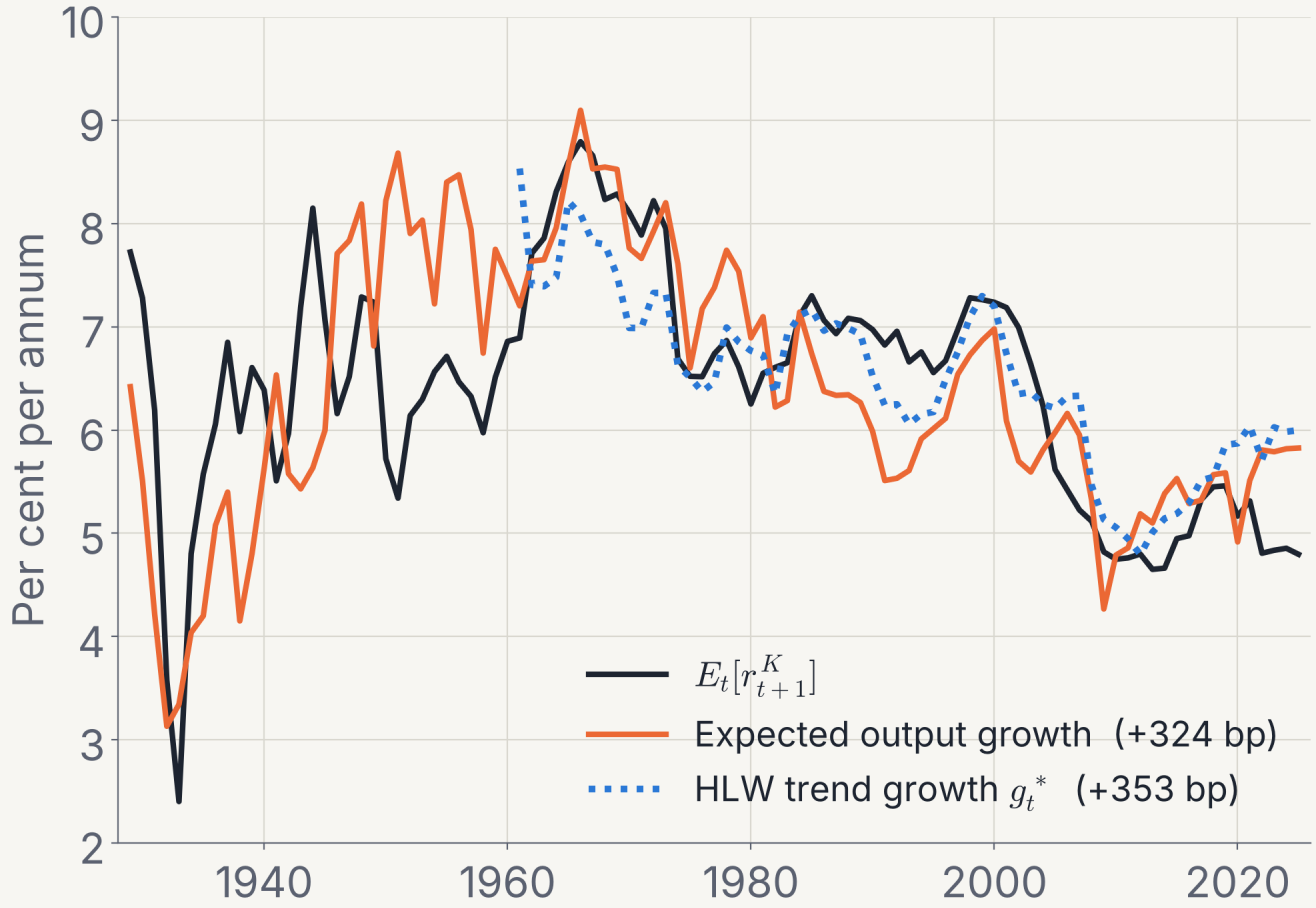
- Correlation 0.92 with HLW *r**
- Constant 364 bp premium
- Since 2000, E[r^K] fell 2.4 pp: 1.9 pp from labor's share
- Labor's share vs *r**: correlation 0.81 (Cho and Williams)



CAPITAL

The return to capital tracks trend growth

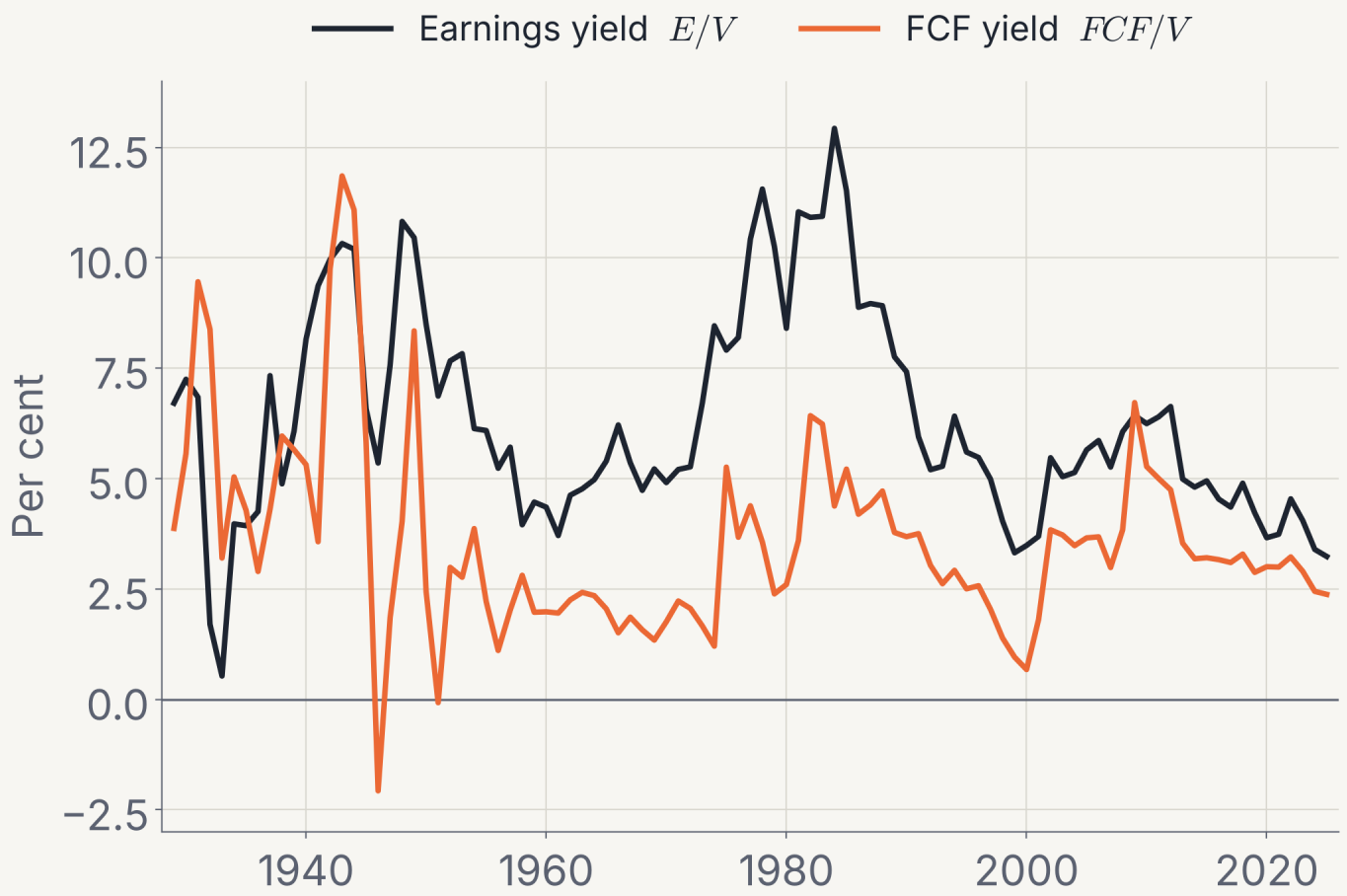
- Correlation 0.65 with our expected growth (0.84 since 1961)
- Trend growth matters for *r**



CAPITAL

Free cash flow has outpaced earnings

- 1980 → 2025
- FCF yield: 2.6% → 2.4%
- Earnings yield: 8.4% → 3.2%
- Earnings = FCF + net investment
- Factorless income rose; investment didn't



CAPITAL

Why don't firms invest more?

1 **The return to capital is declining**

2 **Firms can't boost factorless income by producing more**

More output means lower prices and markups: firms would actually like to produce *less*

FACTORLESS INCOME

Splitting the spread improves return forecasts

$$s_t \equiv \frac{V_t}{Y_t} - \frac{\beta}{1-\beta}\frac{FCF_t}{Y_t} = \underbrace{s_t^K}_{\text{capital}} + \underbrace{s_t^\Pi}_{\text{factorless}}$$

What each spread forecasts, 10 years ahead

- Capital spread: **96%** cash flows
- Factorless spread: **79%** returns
- Total spread: only **26%** returns

10-year return-forecasting R^2

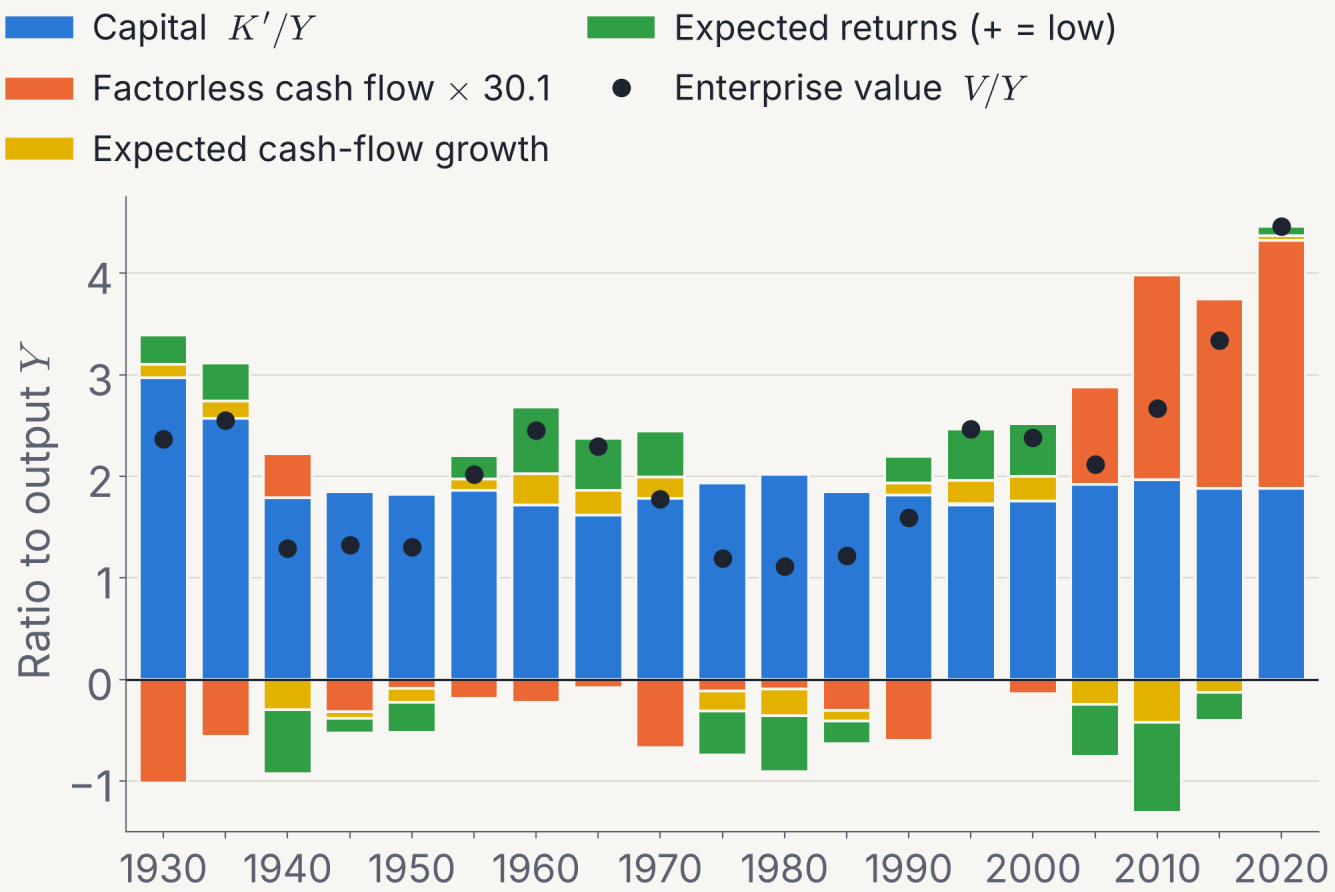
- Total spread: **0.12**
- Factorless spread: **0.57**
- Capital spread adds almost nothing

Summing the two spreads hides most of the return signal

FACTORLESS INCOME

What drove enterprise value, 1929–2025

- Pre-1945: capital
- 1960s–80s: discount rates
- Post-2000: factorless cash flow



POLICY IMPLICATIONS

What's at stake

r*	Still low; trend growth is a key driver
Valuations	Falling labor's share ↔ surging valuations a reversal would destroy a lot of equity wealth ⇒ recession?
Inequality	Wealth is more unequally distributed than labor income (Del Negro, Dogra and Lee 2026)
AI	Will capital make a comeback? If AI is not factorless, FCF and valuations may fall